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HIAWATHA RESOURCES INC.

GEOCHEMICAL REPORT

OGG PROPERTY

NELSON M.D., B.C. NTS 02-F-6 W/2

82

by

P.H. SEVENSMA, Ph.D., P.Eng.

Osoyoos, B.c.

November 24 1989

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,357

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APPENDIX

Assay certificates, Acme Analytical Labs., No. 89-3051 /
Certificate

1. INTRODUCTION

The OGG property is owned by OGG Resources Ltd. of Penticton. It is held under a 100% Option by Hiawatha Resources, who have committed to keep the property in good standing until 1992.

The OGG adjoins the Rozan and Eagle group also held under option by Hiawatha.

The main work carried out by Hiawatha in 1988 consisted of rehabilitating the road up Hall Creek to the Rozan Group, geological mapping by Pec Santos, P. Eng. and an extensive 530 sample soil survey, with all soil samples assayed for 30 metals by ICP and gold by acid leach and AA on a 10 gr. sample.

The 1989 program on the OGG comprised a Westerly extension of the Rozan grid onto the OGG 3 and 1 (Figure 3) for a total of 6.7 km in 5 lines with a program of 134 soil samples taken along lines 200m apart with 50m sample intervals.

After this survey, which is the subject of this report, another line, line 100S, was extended by 1 km and 20 more soil samples taken, and lines 800S and 1000S were extended for 3.2 km and a further 64 samples taken in an easterly direction in an endeavor to find the termination of the gold anomaly onto the Eagle 2 claim.

A limited but crucial program of mapping was also conducted over the North part of the Rozan claim.

2. PROPERTY

The property consists of the following claims:

<u>Claim N</u>	<u>N. Units</u>	<u>Record n</u>	<u>Due date</u>
1	12	3696 (5)	May 08, 1990
2	6	3339 (7)	July 19, 1990
3	3	2623 (5)	May 05, 1991
4	4	2732 (9)	Sept.02, 1991*
5	9	2733 (9)	Sept.02, 1990*
6	6	2703 (7)	July 23, 1990
7	6	3340 (7)	July 18, 1990

1-7

46

See figure 2.

*Subject to acceptance of this report.

2. PROPERTY CONT'D

Access to the claims is either by a 16km bushroad from Blewett up Forty-nine Creek, or a 10 km bushroad up Hall Creek from Hall siding (Hiway 6).

Both these creeks were the only significant gold placer creeks in the area at the end of the 19th century, although their recorded production is only small.

The OGG claims are centered on 49°23' North and 117°22' West on claim sheet 82-F-6 W/2. Elevations vary from 1550m to 2200m. The road from Blewett gives access to the old firetower in the northwest part of the OGG.1., on Copper Mountain.

3. TERRAIN

- . The terrain is moderately rugged with small cirque bowls on the northerly slopes of the 2100m high ridges. Hall Creek Valley is U-shaped and glacial till has been encountered to about elevation 1500m, above which there is rapid thinning of glacial material up slope, where most colluvium is of local derivation. Soil sampling also indicates material of local derivation and is thought, at least above 1500m, to give a good reading on nearly directly or slightly upslope underlying bedrock.

In the general area, mineralized float in the lower till could have a more remote bedrock source, possibly several km away, but above 1500m float should have a nearby source.

4. SOIL SURVEY

Samples were collected in the apparent "B" horizon with a pick and trowel at depths of from 5"-10", placed in kraft paper bags containing about 6-8 spoonfuls, taken to town and dried in the bags prior to shipment to Acme Analytical Laboratories in Vancouver. .500 grams of - 80 mesh material is then digested for each sample with 3ml. 3-1-2 HCl - HNO₃-H₂O at 95° C for one hour and diluted to 10ml with water. The leach is partial for a number of metals and complete for about 15 of the more current metals, like As, Bi, Cd, Co, Cu, Fe, Pb, Mn, Ni, P, Ag, U and Zn.

W is leached only partially, like Bi, Ca, Mg, K, Sr and V. Au is not detected below 3 ppm, and requires a special acid leach followed by atomic absorption (AA), whereas a standard ICP analysis is done on the 30 metals by inductively coupled plasma atomic emission spectroscopy.

4. SOIL SURVEY CONT'D

Data can now be received on diskette and an analysis and plots made by computer. The combination of ICP and computer is therefore a great time-saver. As the survey recorded in this report was an interim survey, and data on 84 subsequent samples have just been received, we are now in a position to prepare a more thorough analysis in the coming months, especially as in the most recent data, some significant tungsten assays also show significant molybdenum. Other tungsten highs correspond to high copper and in other cases to high gold.

At the same time, our most recent mapping in September, 1989 by Pec Santos shows high gold related to the contacts of the large bodies of Silver King porphyry mapped by him on the Rozan ground. The known productive vein lies along such a contact.

The situation is typical of the nearby Second Relief ore body (228,000 tons @ .43^{oz}/t Au mined 1902-1948), about 5km to the South of the OGG claims.

5. RESULTS

Using visual data as well as computerized data on our Rozan information we have assigned the following values to our various categories of anomalies. See Figures 4,5 and 6.

	Gold,ppb	W,ppm	Cu,ppm
Background	0-19	0-4	0-19
Threshold	20-29	5-9	20-49
Low anomalous	30-89	10-19	50-79
Anomalous	90-159	20-59	80-129
Strongly anomalous	160-299	60-99	130-299
Very highly anomalous	>300	>100	>300 (none)

- a. On our figures, we only show some actual background values. Normally, there is only a small dot at background values.
- b. Experience shows that in contouring, one can include the odd aberrant low value.
- c. The only values in the present map lie within the OGG boundaries except line 800S from 150W to 400W. All other values not on OGG are from previous (or line 100S from 800W -> 1750W, subsequent) surveys.
- d. W. shows very good trends, well defined, with good broad threshold halos.

5. RESULTS CONT'D

- e. Cu shows a small central zone partly coincident with the Central tungsten zone.
- f. Au is broadly coincident with both W & Cu. but extends further when moving East.
- g. Some of these apparent contradictions could be solved by mapping this area, notably the Silver King porphyry trend. The patch of strong W, about 600m long NS by up to 300m wide E-W seems to form a remarkable buttress in this whole picture, and lies mostly in unmapped terrain, apparently along the contact of the Silver King porphyry with the Elise volcanic augite porphyry. To the NW numerous unsampled quartz stringers and veins have been observed, on approaching the W-Cu-Au trend originating at 470ppb Au just N of the OGG n.01 boundary, where old diggings have been reported.

Mapping in the relatively open thinly wooded alpine type terrain will be easy.

6. SUMMARY AND CONCLUSIONS

In conjunction with previous data and our recently received assays for lines 800S and 1000S to the East, a second tungsten patch is taking shape from the shaft area down ie. E of the base line surrounded by typical 5-9 ppm threshold values, and trending across the terrain slope. Tungsten soil sampling on the OGG has therefore been most instructive for the Hiawatha land as a whole, and tungsten appears to be a good pathfinder for gold.

The next phase will be a detailed study of the geochemical data by computer methods, whereby the outlining of tungsten zones will be of prime importance, to be followed, as soon as the Hall Creek road is open, by geological mapping of the lower part of the property.

The inter-relationship of tungsten and gold is very clear, and a connection to part of the higher copper values is also clear.

All geochemical data on the Second Relief have been collected. Although scattered and lacking information on gold and tungsten, the copper data appear much weaker than on the Hiawatha. For comparative evaluations, these data should be collated during the winter.

7. COST STATEMENT

1. Jack DENNY, August 8-18/1989	
Linecutting, 6.7 kn @ \$275 per km	\$1,842.50
134 soil samples, 3 Mondays @ \$120	360.00
2 days F150 4x4 truck @ \$40	80.00
Sample shipment	<u>17.95</u>
Total	\$2,300.45
2. P.H. Sevensma, Starting program, August 4-8/1989	
Vancouver - Nelson - Vancouver	330.00
Meals, Lodging	137.70
11 day field	<u>300.00</u>
Total	\$ 767.70
3. Acme Analytical Laboratories, August 20-26/1989	
Assays 134 ICP 30 metal + Appb	<u>1,554.40</u>
Grand Total	<u>\$4,622.55</u>

Respectfully submitted



P.H. Sevensma, Ph.D., P.Eng.

Osoyoos, B.C.
November 24, 1989.

8.

CERTIFICATE

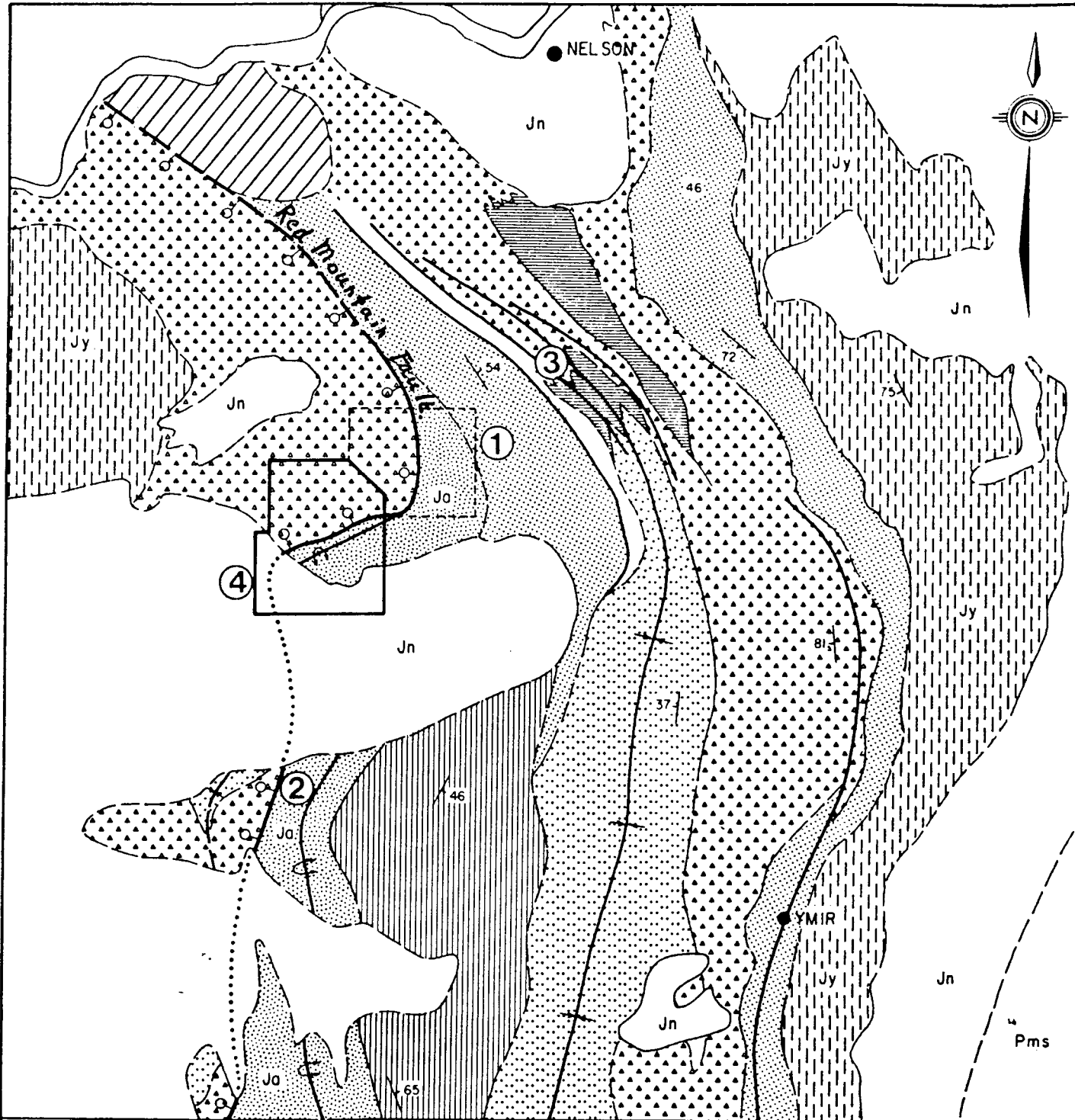
I, Peter H. Sevensma, of 8404 - 85th Street
Osoyoos, B.C., DO HEREBY CERTIFY:

- 1) That I am a Consulting Geologist with business address as above.
- 2) That I graduated at the University of Geneva, Switzerland in 1937 and that I obtained my Ph.D. in Geological Sciences in 1941 at the same institution, my thesis subject being the study of certain gold mines in Central France.
- 3) That I am a registered Professional Engineer, member of the Association of Professional Engineers in British Columbia.
- 4) That I have practiced my profession for the last fifty-two years with the only interruption being the war in the Far East from 1942 to 1946.
- 5) That I have personally directed this work program on the OGG property after examining the area in 1988.
- 6) That I am the exploration manager of Hiawatha Resources Inc.



P.H. Sevensma, Ph.D., P.Eng.

Osoyoos, B.C.
November 24th, 1989.



Höy and Andrew. 1989.

MIDDLE JURASSIC

Jn NELSON Intrusions

LOWER OR MIDDLE JURASSIC (?)

diorite (?)

LOWER JURASSIC

ROSSLAND GROUP

SILVER KING intrusions

HALL FORMATION

ELISE FORMATION

Upper Elise

intermediate to mafic lapilli crystal and fine tuff

intermediate lapilli and crystal tuff

lower Elise

mafic flow breccia

mafic pyroclastic breccia crystal tuff

Jo ARCHIBALD FORMATION

Jy YMIR GROUP

PALEOZOIC

Pms metasedimentary rocks

..... Fault obliterated by later granodiorite

P.H. Sevensma

- 1 Rozan-Eagle Group
- 2 Second Relief
- 3 Silver King
- 4 OGG Claims

Km 0 1 2 3 4 5 Km

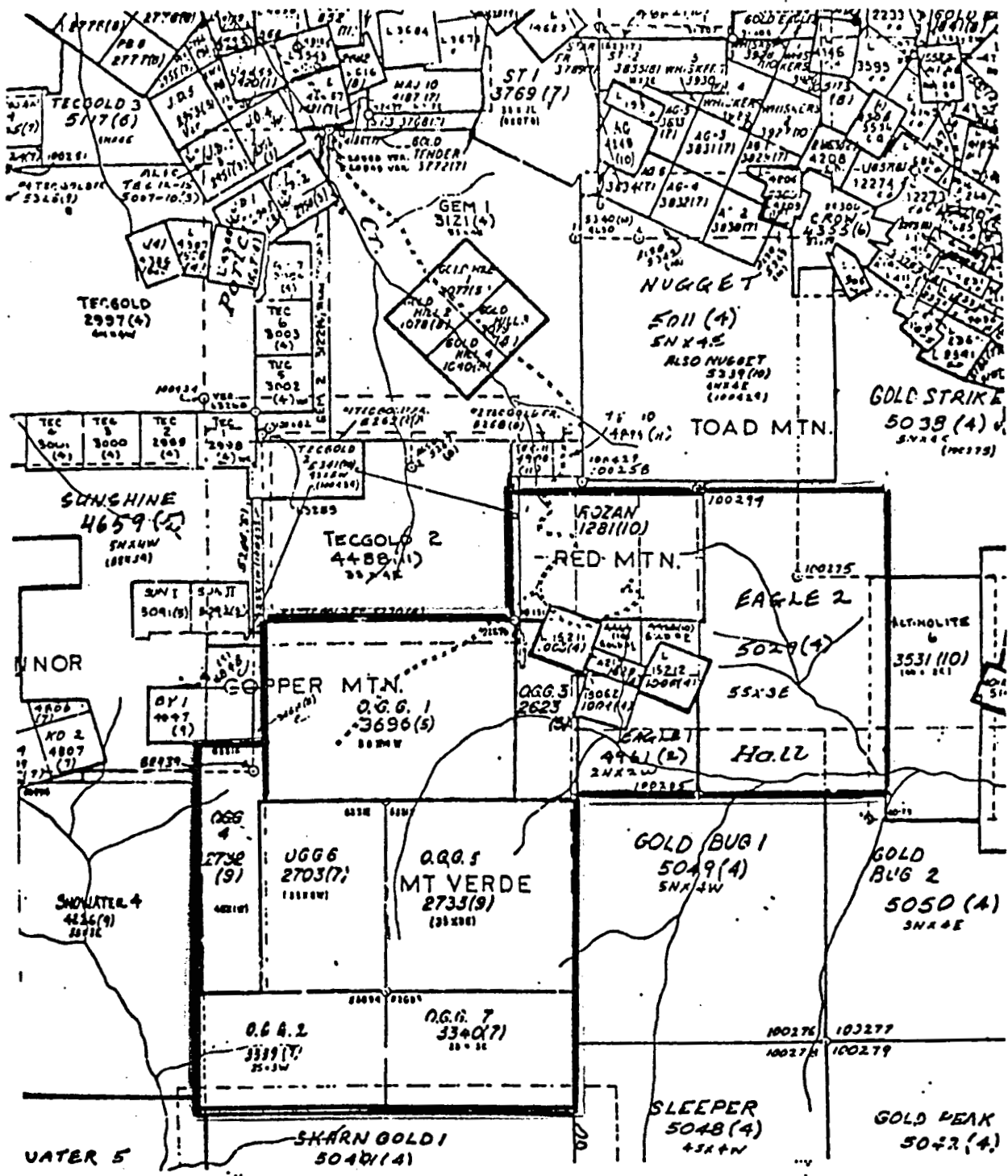
HIAWATHA RESOURCES INC.

OGG GROUP
GEOLOGICAL FRAMEWORK

NELSON M.D., B.C.

PETER H. SEVENSMA, PH.D., P. ENG.

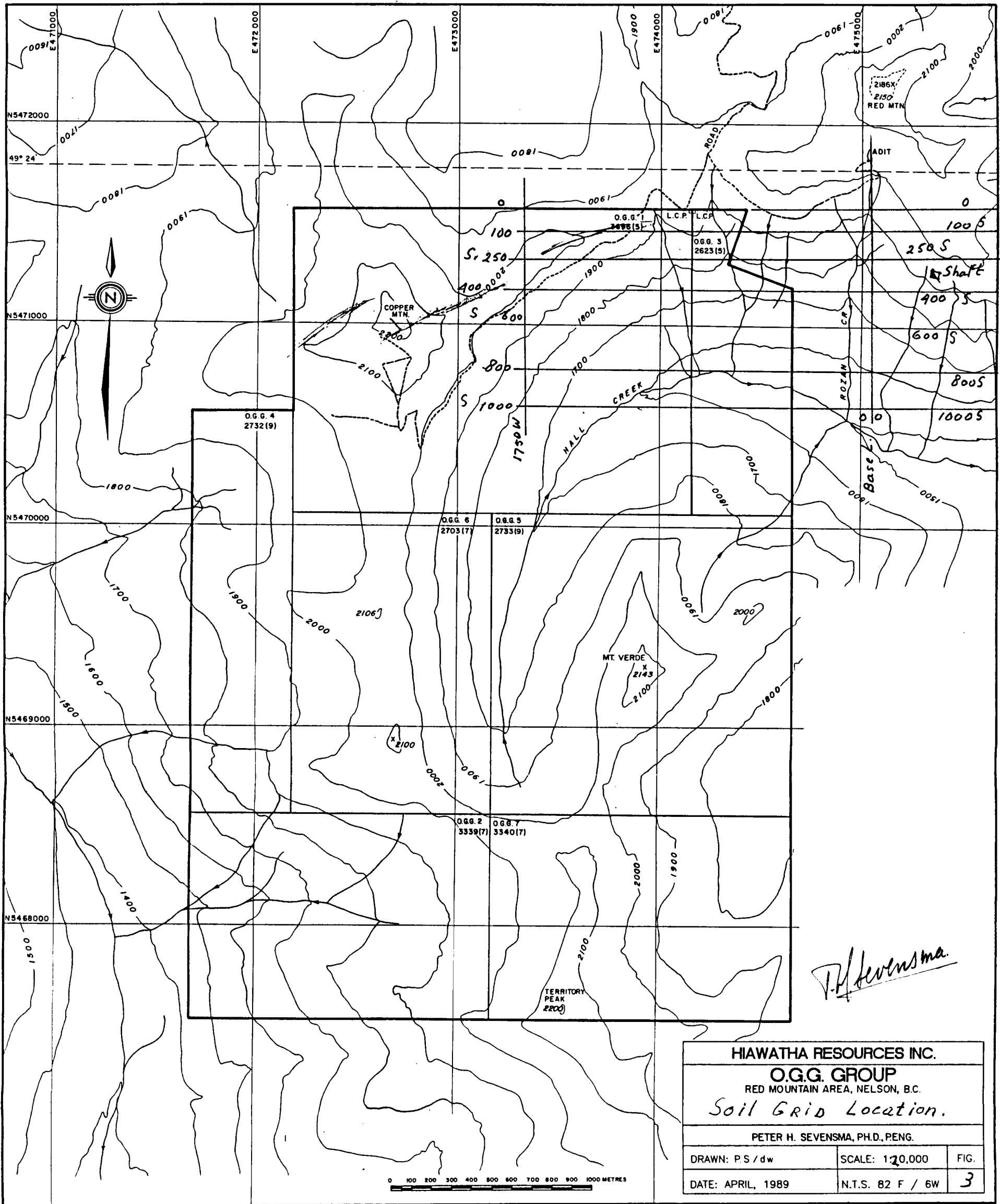
N.T.S. 82F/6W	SCALE 1:150,000	FIGURE
DATE. APRIL, 1989	DRAWN JW.	1.



CLAIM MAP, APRIL 7, 1989
 HIAWATHA CLAIMS, ROZAN,
 EAGLE 1, EAGLE 2, OGG 1-7
 NTS 82-F-6, W/2 Nelson M.D., B.C.

J. H. Lewinma.

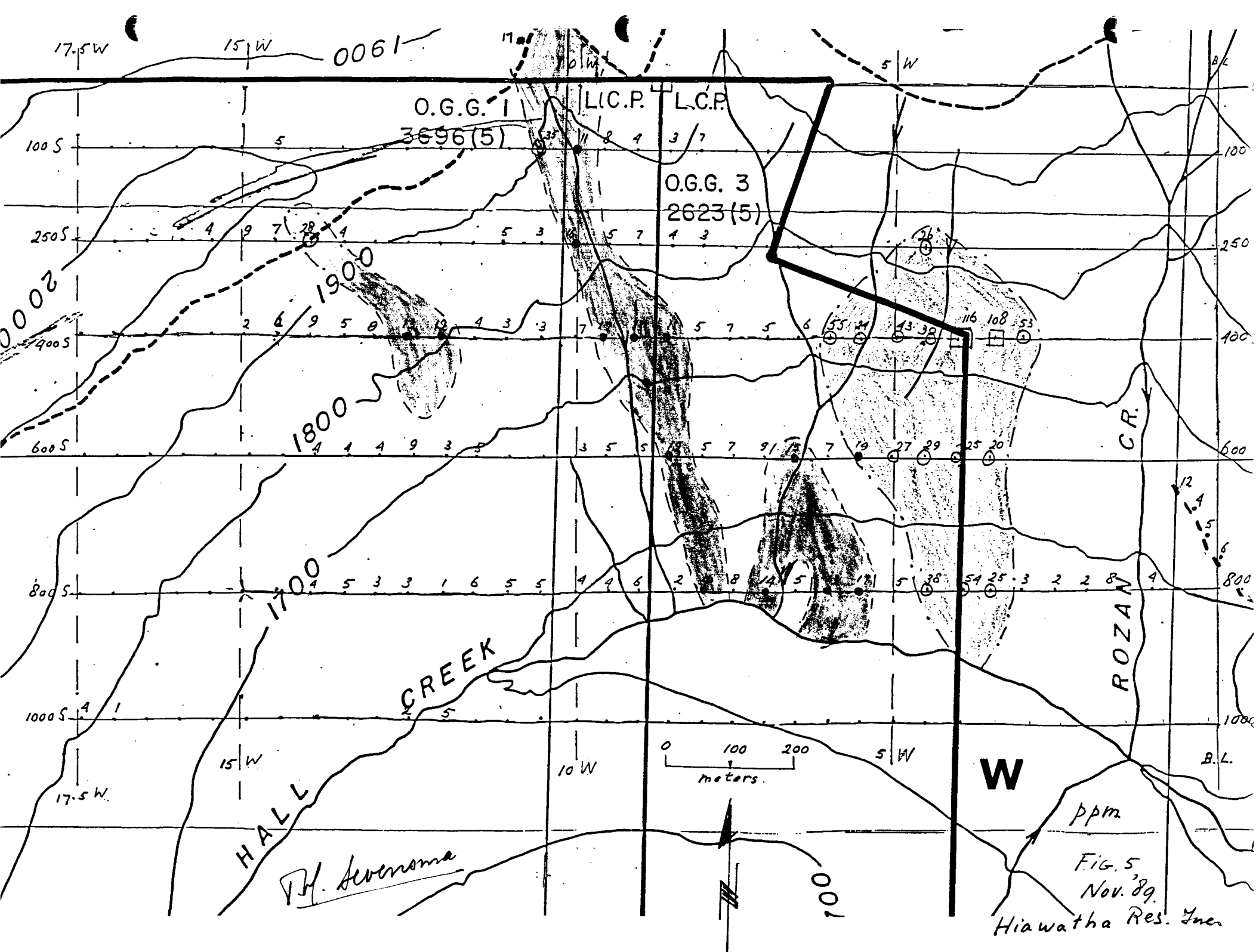
Figure 1



P. H. Sevensma

HIAWATHA RESOURCES INC. O.G.G. GROUP RED MOUNTAIN AREA, NELSON, B.C. <i>Soil Grid Location.</i>		
PETER H. SEVENSMA, PH.D., PENG.		
DRAWN: P.S./dw	SCALE: 1:20,000	FIG.
DATE: APRIL, 1989	N.T.S. 82 F / 6W	3

Nov. 1989 Update.



O.G.G. 1

LIC.P.

L.C.P.

3696(5)

O.G.G. 3

2623(5)

HALL CREEK

ROZAN CR.

0 100 200
meters

W

ppm

FIG. 5
Nov. 89.

Hiawatha Res. Inc.

V.H. Stevens

100

HALL

15 W

10 W

5 W

B.L.

1000 S

800 S

600 S

400 S

250 S

100 S

17.5 W

15 W

0061

10 W

5 W

B.L.

2000

1900

1800

1700

CREEK

CR.

meters

ppm

FIG. 5
Nov. 89.

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HALL

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B.L.

1000 S

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CREEK

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1900

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meters

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250 S

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0061

10 W

5 W

B.L.

2000

1900

1800

1700

CREEK

CR.

meters

ppm

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0061

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2000

1900

1800

1700

CREEK

CR.

meters

ppm

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17.5 W

15 W

0061

10 W

5 W

B.L.

2000

1900

1800

1700

CREEK

CR.

meters

ppm

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Nov. 89.

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15 W

10 W

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B.L.

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800 S

600 S

400 S

250 S

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17.5 W

15 W

0061

10 W

5 W

B.L.

2000

1900

1800

1700

CREEK

CR.

meters

ppm

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Nov. 89.

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100

HALL

15 W

10 W

5 W

B.L.

1000 S

800 S

600 S

400 S

250 S

100 S

17.5 W

15 W

0061

10 W

5 W

B.L.

2000

1900

1800

1700

CREEK

CR.

meters

ppm

FIG. 5
Nov. 89.

Hiawatha Res. Inc.

V.H. Stevens

100

HALL

15 W

10 W

5 W

B.L.

1000 S

800 S

600 S

400 S

250 S

100 S

17.5 W

15 W

0061

10 W

5 W

B.L.

2000

1900

1800

1700

CREEK

CR.

meters

ppm

FIG. 5
Nov. 89.

Hiawatha Res. Inc.

V.H. Stevens

100

HALL

15 W

10 W

5 W

B.L.

1000 S

800 S

600 S

400 S

250 S

100 S

17.5 W

15 W

0061

10 W

5 W

B.L.

2000

1900

1800

1700

CREEK

CR.

meters

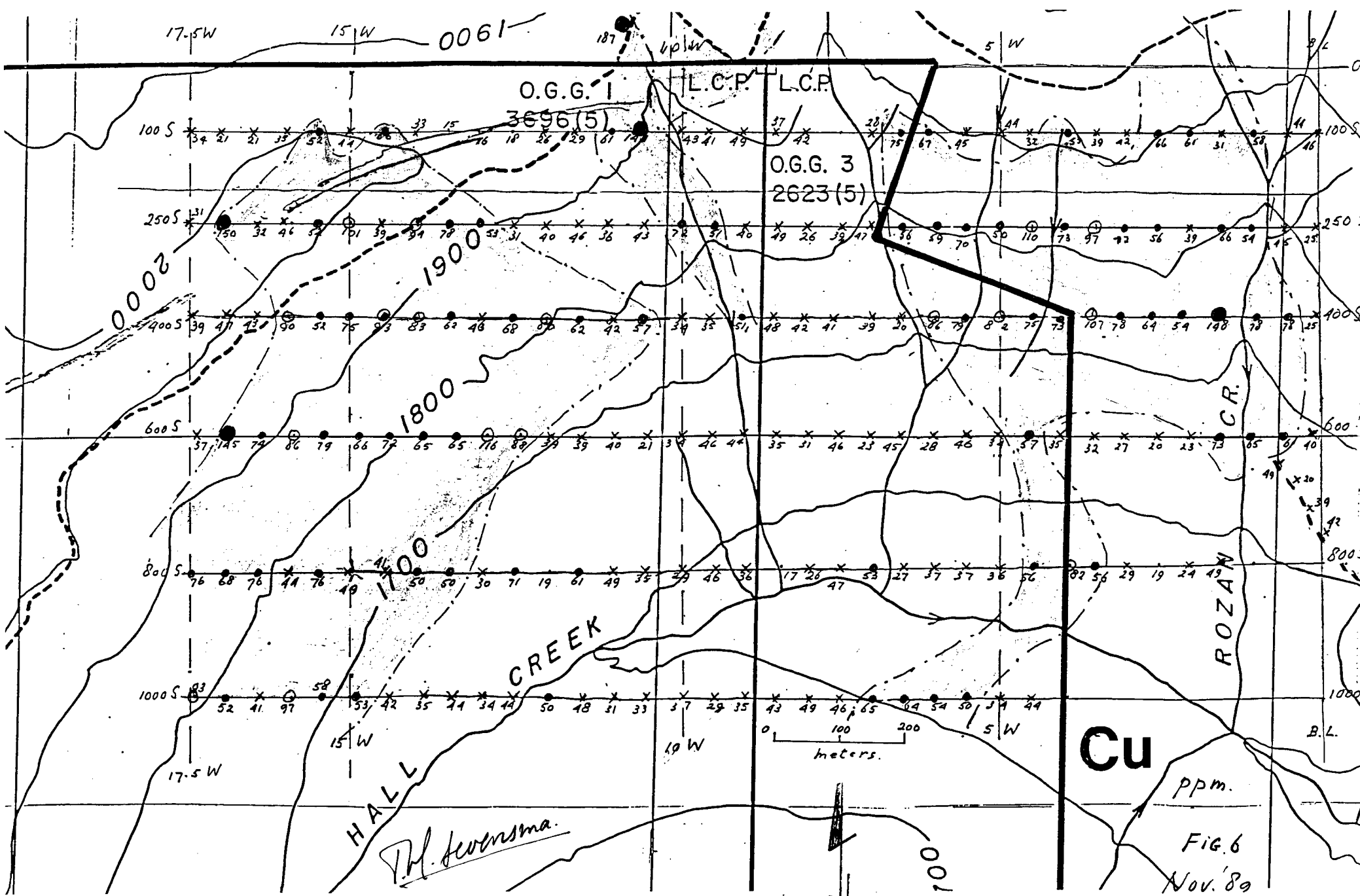
ppm

FIG. 5
Nov. 89.

Hiawatha Res. Inc.

V.H. Stevens

100



Cu
ppm.

FIG. 6
Nov. '80

Hiawatha Res. Inc.

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: Soil -80 Mesh AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: AUG 20 1989 DATE REPORT MAILED: Aug 26/89 SIGNED BY: C. Long, D. TOYE, C. LKONG, J. WANG; CERTIFIED B.C. ASSAYERS

HIAWATHA RESOURCES INC. File # 89-3051 Page 1

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	%	%	%	PPM	PPB	
L2+50S 17-50W	1	31	13	69	.3	43	10	355	4.79	6	5	ND	2	50	1	2	7	83	.23	.126	13	58	1.13	166	.27	6	3.38	.01	.11	2	1
L2+50S 17-00W	4	150	9	32	.5	10	13	934	7.37	2	5	ND	1	18	1	2	7	125	.26	.355	4	19	.64	73	.21	7	3.53	.01	.09	2	1
L2+50S 16+50W	1	32	19	29	.1	5	3	109	2.92	2	5	ND	1	10	1	2	3	52	.05	.067	7	13	.19	33	.15	4	3.23	.01	.05	1	4
L2+50S 15+00W	2	46	17	87	.2	13	9	1273	3.24	5	5	ND	1	40	1	2	4	52	.26	.123	9	20	.43	69	.10	8	4.11	.01	.07	1	12
L2+50S 15+50W	15	52	19	117	.3	18	10	621	5.34	37	5	ND	1	20	1	2	4	83	.12	.129	7	35	.49	56	.16	6	3.27	.01	.07	4	7
L2+50S 15+00W	2	101	11	111	.4	41	14	569	5.45	9	5	ND	2	98	1	2	2	97	.47	.330	24	52	.97	136	.18	5	4.53	.01	.12	9	7
L2+50S 14+50W	1	39	14	97	.3	19	13	1426	5.70	15	5	ND	1	82	1	2	7	62	.57	.147	10	30	.65	111	.12	6	3.59	.01	.09	7	23
L2+50S 14+00W	10	34	10	86	.5	16	24	1577	5.34	4	5	ND	1	113	1	2	11	71	.82	.177	9	27	.72	114	.11	9	4.18	.01	.11	29	560
L2+50S 13+50W	2	78	7	94	.3	37	14	379	4.50	3	5	ND	3	44	1	2	3	71	.27	.296	13	57	.87	113	.20	2	4.79	.01	.07	4	25
L2+50S 13+00W	1	53	20	73	.2	33	14	373	4.03	8	5	ND	4	50	1	2	6	71	.37	.188	17	59	.38	132	.21	3	4.91	.01	.09	1	8
L2+50S 12+50W	1	31	12	91	.2	29	12	369	5.01	7	5	ND	2	30	1	2	8	35	.20	.174	8	63	.86	92	.22	7	2.98	.01	.03	2	9
L2+50S 12+00W	1	40	13	101	.2	49	15	431	4.32	6	5	ND	4	37	1	3	4	77	.21	.307	14	64	1.26	231	.27	4	4.56	.01	.13	1	4
L2+50S 11+50W	1	46	12	87	.2	42	15	362	4.62	3	5	ND	3	35	1	2	7	85	.22	.171	13	79	1.12	100	.25	3	3.73	.01	.09	1	32
L2+50S 11+00W	2	36	13	91	.2	52	15	422	5.09	7	5	ND	3	52	1	2	6	39	.33	.254	16	90	1.24	156	.27	6	4.08	.01	.10	5	13
L2+50S 10+50W	2	43	10	92	.3	43	14	468	5.14	7	5	ND	3	44	1	2	4	92	.28	.225	18	90	1.12	125	.26	3	4.02	.01	.11	3	15
L2+50S 10+00W	9	72	9	96	.2	41	19	652	5.52	9	5	ND	2	63	1	5	6	90	.32	.171	9	53	1.30	158	.21	5	5.17	.01	.13	16	116
L2+50S 9+50W	1	51	9	82	.3	39	17	519	4.59	9	5	ND	4	39	1	4	3	81	.24	.174	14	61	1.01	115	.21	5	3.85	.01	.09	5	16
L2+50S 9+00W	2	40	10	89	.1	39	13	457	4.65	4	5	ND	2	41	1	2	2	32	.29	.170	13	66	.95	132	.20	2	3.72	.01	.08	7	97
L2+50S 8+50W	1	49	13	125	.2	66	19	539	5.79	11	5	ND	3	69	1	2	9	109	.45	.269	23	111	1.60	232	.30	6	3.65	.01	.18	4	10
L2+50S 8+00W	1	26	14	105	.2	52	12	469	5.20	4	5	ND	3	45	1	2	3	92	.26	.204	12	86	1.13	164	.29	5	2.92	.01	.12	3	124
L4+00S 17+50W	1	39	13	106	.2	16	11	801	3.94	7	5	ND	1	23	1	2	4	75	.11	.191	8	26	.61	79	.20	2	4.62	.01	.08	1	5
L4+00S 17+00W	1	47	4	91	.1	14	9	546	3.83	6	5	ND	1	27	1	2	2	71	.16	.136	7	22	.48	73	.17	2	4.68	.01	.06	1	1
L4+00S 16+50W	1	43	14	72	.1	13	7	489	3.52	9	5	ND	1	14	1	2	4	62	.11	.176	5	28	.35	69	.18	2	4.37	.01	.07	1	4
L4+00S 16+00W	2	90	12	106	.2	20	14	564	4.50	7	5	ND	2	32	1	2	3	84	.22	.139	6	33	.88	101	.17	4	4.70	.01	.11	1	5
L4+00S 15+50W	2	52	11	124	.3	20	12	728	4.70	8	5	ND	2	26	1	2	5	83	.17	.154	6	35	.74	91	.18	2	4.46	.01	.09	1	2
L4+00S 15+00W	5	75	17	123	.3	21	14	670	5.05	11	5	ND	2	22	1	2	5	83	.14	.149	8	30	.77	108	.18	3	5.18	.01	.10	2	1
L4+00S 14+50W	6	93	14	110	.3	25	18	1902	5.36	3	5	ND	1	63	1	2	4	86	.82	.099	14	40	1.06	103	.16	4	3.54	.01	.09	6	10
L4+00S 14+00W	5	83	6	77	.3	22	17	1187	4.06	2	5	ND	1	81	1	2	2	71	.64	.103	14	35	1.04	112	.11	5	3.05	.01	.11	9	61
L4+00S 13+50W	5	62	10	78	.1	36	16	497	5.51	5	5	ND	1	61	1	2	7	96	.43	.153	9	60	1.25	121	.19	2	3.43	.01	.11	5	51
L4+00S 13+00W	4	46	9	77	.3	39	17	514	5.39	4	5	ND	1	61	1	2	5	94	.44	.076	12	57	1.21	148	.24	2	3.35	.01	.12	9	59
L4+00S 12+50W	3	68	20	89	.6	28	20	1085	5.06	5	5	ND	1	72	1	2	4	91	.60	.084	21	60	1.27	158	.17	9	3.68	.01	.13	13	22
L4+00S 12+00W	2	80	16	97	.3	40	19	674	4.84	6	5	ND	1	86	1	4	2	90	.60	.188	16	61	1.32	233	.19	4	4.72	.01	.14	12	27
L4+00S 11+50W	1	62	10	84	.2	56	19	446	5.43	6	5	ND	3	96	1	2	4	96	.55	.235	22	90	1.58	252	.26	3	3.76	.01	.15	4	15
L4+00S 11+00W	1	42	11	84	.4	45	16	460	5.33	6	5	ND	2	62	1	2	6	162	.44	.085	19	96	1.30	141	.26	3	3.70	.01	.10	3	22
L4+00S 10+50W	1	57	15	90	.3	43	19	1311	4.71	7	5	ND	1	82	1	4	4	86	.49	.161	19	68	1.30	177	.16	6	3.62	.01	.13	3	57
L4+00S 10+00W	1	34	10	98	.1	28	13	539	5.22	6	5	ND	2	38	1	2	2	94	.24	.146	7	47	1.14	107	.21	2	3.63	.01	.13	7	29
STD C-20-S	18	65	42	132	6.9	75	31	1022	4.20	44	18	7	37	49	19	14	23	59	.49	.094	39	56	.86	177	.07	31	2.04	.06	.13	11	48

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
L4+00S 5+50W	2	35	19	168	.5	25	11	551	4.53	2	5	ND	2	61	1	2	5	67	.29	.251	6	32	.94	199	.15	2	4.85	.01	.09	17	33
L4+00S 9+00W	4	51	17	36	.4	24	14	571	4.53	2	5	ND	1	33	1	2	2	77	.26	.084	7	40	1.04	99	.15	2	3.82	.01	.09	13	35
L4+00S 9+50W	3	48	11	101	.2	41	17	910	4.79	4	5	ND	1	50	1	2	2	77	.40	.175	14	65	1.24	197	.17	2	4.25	.01	.12	11	24
L4+00S 9+00W	2	42	16	92	.3	44	17	1054	4.72	3	5	ND	1	71	1	3	7	80	.54	.205	19	74	1.22	197	.19	2	3.25	.01	.10	5	17
L4+00S 9+50W	2	41	15	91	.2	48	16	503	4.77	2	5	ND	3	75	1	2	8	78	.43	.298	20	74	1.09	159	.20	3	3.60	.01	.09	7	81
L4+00S 7+00W	2	39	16	31	.2	41	15	389	4.51	2	5	ND	3	57	1	2	5	78	.36	.171	15	67	1.11	135	.21	2	3.64	.01	.07	5	62
L4+00S 5+50W	3	20	19	69	.2	13	10	454	5.35	2	6	ND	2	17	1	2	2	50	.12	.197	7	20	.37	135	.15	2	3.79	.01	.05	6	9
L4+00S 8+00W	6	96	12	99	.4	13	31	1152	5.33	2	5	ND	1	34	1	2	2	107	.21	.155	9	28	1.07	104	.16	3	4.46	.01	.12	55	34
L4+00S 5+50W	2	79	16	111	.1	48	28	1661	5.89	2	5	ND	1	64	1	2	5	107	.51	.153	13	53	1.75	476	.24	2	4.00	.01	.20	24	260
L4+00S 5+00W	4	32	5	100	.3	27	22	1332	5.40	2	5	ND	1	57	1	2	3	100	.33	.127	12	32	1.32	346	.19	2	4.39	.01	.13	43	135
L6+00S 17+50W	1	37	6	80	.2	15	11	829	4.38	2	5	ND	1	42	1	2	2	80	.21	.088	6	23	.61	78	.18	2	3.22	.01	.07	2	11
L6+00S 17+00W	1	145	18	75	.3	19	10	602	3.77	2	5	ND	1	56	1	2	5	70	.31	.112	7	30	.80	104	.16	2	3.85	.01	.09	1	22
L6+00S 16+50W	1	74	11	89	.4	14	10	750	3.42	4	5	ND	1	66	1	2	5	64	.56	.162	7	19	.72	72	.11	3	4.10	.01	.09	2	4
L6+00S 16+00W	2	86	12	115	.3	24	21	1115	4.87	5	5	ND	1	52	1	2	2	81	.46	.092	11	32	1.07	119	.15	2	3.97	.01	.11	1	5
L6+00S 15+50W	2	79	14	52	.4	26	15	652	4.66	2	5	ND	1	55	1	2	3	78	.41	.135	12	37	.99	114	.16	2	3.50	.01	.10	1	9
L6+00S 15+00W	1	66	18	103	.4	18	11	435	4.65	5	5	ND	1	46	1	2	5	73	.33	.111	6	25	.80	79	.17	2	4.37	.01	.09	2	9
L6+00S 14+50W	1	72	19	96	.2	20	21	535	5.09	2	5	ND	4	136	1	2	2	78	.94	.351	36	63	1.96	420	.27	2	4.29	.01	.21	1	6
L6+00S 14+00W	4	55	13	92	.1	25	16	928	4.58	2	5	ND	1	44	1	2	3	71	.25	.071	13	35	.95	140	.18	3	4.02	.01	.09	4	10
L6+00S 12+50W	2	65	13	67	.2	39	18	1574	5.01	2	5	ND	1	65	1	2	4	75	.48	.204	20	53	1.16	186	.20	5	3.40	.01	.10	4	75
L6+00S 13+00W	1	116	21	38	.1	23	15	1160	3.90	2	5	ND	1	61	1	2	2	65	.49	.149	10	26	1.00	252	.12	2	3.97	.01	.11	4	9
L6+00S 12+50W	3	88	14	91	.4	22	13	625	4.16	2	5	ND	1	42	1	2	2	70	.39	.095	11	31	.93	85	.15	4	4.52	.01	.08	9	37
L6+00S 12+00W	2	39	10	94	.3	23	16	397	5.90	2	5	ND	1	46	1	2	2	97	.44	.073	8	52	1.08	149	.20	2	2.55	.01	.09	3	21
L6+00S 11+50W	3	39	6	84	.2	24	13	397	4.50	2	5	ND	1	46	1	2	5	72	.39	.053	9	34	.90	104	.18	2	4.33	.01	.07	6	10
L6+00S 11+00W	1	40	6	84	.1	46	17	512	4.80	3	5	ND	2	53	1	2	6	84	.36	.213	16	75	1.15	211	.24	5	3.50	.01	.10	1	11
L6+00S 10+50W	1	21	15	75	.1	25	12	342	4.40	2	5	ND	1	29	1	2	2	70	.25	.109	9	49	.62	142	.23	2	3.26	.01	.07	1	14
L6+00S 10+00W	1	34	12	96	.1	38	15	469	5.03	2	5	ND	2	59	1	2	2	85	.42	.194	14	73	1.07	178	.23	2	2.77	.01	.08	3	13
L6+00S 9+50W	1	46	13	99	.1	47	17	577	5.10	2	5	ND	2	72	1	2	3	83	.50	.228	18	75	1.23	169	.22	2	3.18	.01	.09	5	22
L6+00S 9+00W	1	44	11	96	.2	38	13	405	4.50	4	5	ND	2	47	1	2	2	79	.32	.130	14	66	1.02	117	.19	4	3.86	.01	.08	5	17
L6+00S 8+50W	2	35	14	95	.1	23	13	880	4.56	2	5	ND	1	32	1	2	2	74	.32	.094	7	35	.84	136	.19	2	3.95	.01	.08	19	23
L6+00S 8+00W	2	31	16	115	.3	29	15	1091	4.77	2	5	ND	1	39	1	2	2	77	.34	.182	11	58	.85	188	.21	6	3.14	.01	.09	5	23
L6+00S 7+50W	2	46	15	116	.1	51	18	554	5.14	5	5	ND	3	80	1	2	6	82	.52	.339	22	77	1.21	177	.21	3	3.85	.01	.09	7	27
L6+00S 7+00W	2	23	12	94	.1	25	13	1670	4.59	2	5	ND	1	40	1	2	2	82	.31	.088	11	56	.81	210	.20	2	2.43	.01	.06	9	24
L6+00S 6+50W	3	45	14	101	.2	18	14	745	4.51	2	5	ND	1	31	1	2	2	74	.30	.132	9	30	.74	115	.17	4	3.70	.01	.06	15	21
L6+00S 6+00W	1	28	13	64	.1	14	9	514	3.03	2	5	ND	2	21	1	2	2	42	.25	.333	6	17	.32	109	.16	5	5.33	.01	.04	7	8
L6+00S 5+50W	2	46	12	97	.2	28	16	821	4.67	2	5	ND	2	40	1	2	2	81	.28	.211	9	41	1.01	183	.18	2	3.57	.01	.07	19	520
L6+00S 5+00W	2	34	14	75	.2	22	12	727	4.11	3	5	ND	2	27	1	2	5	60	.20	.558	6	27	.67	151	.18	2	5.05	.01	.05	27	24
STD C/AU-E	18	57	33	132	6.8	64	31	1017	4.30	41	19	8	37	49	18	15	22	59	.51	.093	39	56	.89	176	.07	36	2.06	.06	.13	11	51

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Hg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
L6+00S 4+50W	3	57	12	86	.2	39	15	550	4.53	4	5	ND	2	46	1	2	2	75	.34	.266	9	39	1.28	202	.20	3	4.79	.01	.09	29	33
L8+00S 17+50W	1	76	17	92	.3	16	15	862	4.05	3	5	ND	1	95	1	3	2	87	.88	.107	12	26	1.17	92	.14	6	3.78	.01	.10	1	28
L8+00S 17+00W	1	68	26	99	.2	12	14	888	3.95	2	5	ND	1	58	1	3	2	87	.54	.061	7	20	1.05	90	.16	9	3.74	.01	.08	1	7
L8+00S 16+50W	1	76	15	88	.2	11	12	565	3.61	5	5	ND	1	50	1	2	2	71	.47	.100	7	17	.83	77	.13	5	4.59	.01	.07	1	14
L8+00S 16+00W	1	44	14	79	.4	9	11	1474	3.31	7	5	ND	1	54	1	2	2	60	.68	.061	6	15	.60	109	.11	4	2.88	.01	.08	1	4
L8+00S 15+50W	1	76	44	132	.3	15	15	2401	3.27	6	5	ND	1	63	1	2	2	57	.41	.130	8	20	.73	143	.06	5	2.92	.01	.12	2	6
L8+00S 15+00W	1	49	20	127	.2	18	13	959	4.43	2	5	ND	1	47	1	2	2	60	.49	.262	7	24	.65	295	.15	8	2.79	.01	.12	2	4
L8+00S 14+50W	1	41	15	92	.2	16	13	1959	4.45	3	5	ND	1	47	1	2	2	70	.39	.094	7	24	.59	179	.19	8	2.33	.01	.10	1	6
L8+00S 14+00W	2	50	11	96	.2	19	14	741	4.48	2	5	ND	1	42	1	2	2	75	.27	.105	6	30	.80	118	.17	2	3.47	.01	.07	4	56
L8+00S 13+50W	2	50	18	106	.3	22	13	613	4.32	7	5	ND	2	32	1	2	2	70	.23	.183	8	29	.66	152	.18	5	4.86	.01	.09	5	6
L8+00S 13+00W	1	30	8	82	.2	13	8	277	2.83	8	5	ND	2	19	1	2	2	43	.18	.167	5	16	.32	93	.16	3	5.45	.01	.04	3	21
L8+00S 12+50W	3	71	12	104	.4	25	15	605	4.75	6	5	ND	3	35	1	2	2	77	.22	.209	8	38	.91	114	.19	5	4.62	.01	.08	3	7
L8+00S 12+00W	1	19	13	69	.1	11	6	299	2.50	8	5	ND	3	11	1	2	2	35	.08	.212	3	14	.20	64	.16	7	6.52	.01	.03	1	5
L8+00S 11+50W	3	61	12	102	.6	19	14	839	5.27	2	5	ND	1	43	1	2	2	80	.29	.146	7	30	.78	134	.15	4	3.61	.01	.07	6	14
L8+00S 11+00W	3	49	10	97	.5	21	12	738	4.28	5	5	ND	2	41	1	3	2	71	.28	.104	7	33	.77	107	.17	7	4.26	.01	.06	5	16
L8+00S 10+50W	2	35	10	110	.4	26	12	1606	4.29	8	5	ND	2	54	1	2	2	75	.59	.135	10	43	.78	151	.20	4	3.52	.01	.08	5	15
L8+00S 10+00W	3	29	16	97	.1	24	14	774	5.04	4	5	ND	3	29	1	3	2	80	.22	.211	9	45	.76	101	.21	9	3.22	.01	.07	4	7
L8+00S 9+50W	1	46	19	104	.2	48	17	588	4.75	3	5	ND	4	62	1	2	2	93	.39	.251	21	99	1.32	187	.23	4	4.01	.01	.13	4	26
L8+00S 9+00W	3	36	13	122	.5	35	14	1010	4.84	2	5	ND	2	36	1	2	2	83	.25	.173	9	67	.94	124	.19	6	3.32	.01	.07	6	17
L8+00S 8+50W	1	17	18	51	.2	9	4	320	1.78	9	5	ND	1	17	1	2	2	31	.21	.115	5	12	.19	37	.12	4	4.49	.02	.03	2	5
L8+00S 8+00W	1	26	12	93	.1	21	9	426	3.47	7	6	ND	3	20	1	2	2	61	.13	.114	7	43	.56	83	.17	4	5.28	.01	.05	10	10
L8+00S 7+50W	2	47	2	87	.3	45	16	552	4.55	10	5	ND	3	82	1	2	2	82	.57	.276	23	80	1.24	149	.18	3	3.38	.01	.10	8	132
L8+00S 7+00W	5	53	7	114	.3	25	15	701	5.22	2	5	ND	2	61	1	2	2	86	.66	.157	13	43	1.17	136	.16	3	3.09	.01	.08	14	119
L8+00S 6+50W	2	27	10	78	.4	13	10	484	3.72	6	5	ND	2	19	1	3	2	63	.17	.184	8	23	.39	112	.17	2	4.54	.01	.05	5	13
L8+00S 6+00W	2	37	12	90	.6	20	13	570	4.25	6	5	ND	3	29	1	2	2	77	.24	.190	9	29	.74	119	.16	5	4.51	.01	.07	13	40
L8+00S 5+50W	3	37	16	97	.4	19	12	670	5.01	5	5	ND	2	28	1	2	2	91	.19	.171	8	31	.68	154	.19	4	3.65	.01	.06	17	37
L8+00S 5+00W	2	36	7	104	.3	21	10	551	4.00	6	5	ND	2	30	1	2	2	72	.21	.157	10	40	.72	107	.16	2	4.33	.01	.06	5	48
L8+00S 4+50W	9	56	8	104	.4	20	16	1088	4.74	2	5	ND	1	47	1	2	2	90	.65	.122	11	28	.93	119	.16	2	3.65	.01	.09	38	40
L8+00S 4+00W	7	82	9	93	.6	26	18	834	4.81	2	5	ND	1	68	1	2	2	96	.91	.125	13	40	1.34	130	.12	4	3.82	.01	.12	54	65
L8+00S 3+50W	5	56	17	114	.4	20	15	953	4.35	5	5	ND	1	41	1	2	2	80	.44	.134	8	30	.86	158	.15	2	3.60	.01	.08	25	151
L8+00S 3+00W	2	29	15	96	.2	18	17	553	4.87	7	5	ND	2	25	1	2	2	74	.24	.194	8	33	.53	130	.18	3	3.49	.01	.06	3	13
L8+00S 2+50W	1	19	15	76	.3	9	5	294	2.77	6	5	ND	3	9	1	2	2	41	.08	.163	5	11	.16	91	.16	3	5.94	.01	.03	2	66
L8+00S 2+00W	1	24	10	87	.2	13	7	533	3.20	3	5	ND	2	13	1	2	2	52	.10	.245	6	19	.33	88	.15	2	4.69	.01	.05	2	83
L8+00S 1+50W	3	49	17	90	.2	27	13	402	5.35	3	5	ND	2	40	1	2	2	102	.34	.186	12	36	1.08	126	.18	2	2.87	.01	.08	8	390
L10+00S 17+50W	1	93	7	89	.3	31	16	538	4.45	6	5	ND	2	85	1	2	2	87	.52	.141	14	44	1.18	150	.20	8	4.40	.01	.11	4	29
L10+00S 17+00W	1	52	13	89	.2	21	14	730	4.40	4	5	ND	2	58	1	2	2	84	.37	.164	10	28	1.01	133	.18	3	4.05	.01	.08	1	7
STD C/AU-S	18	55	40	132	6.9	68	31	1023	4.06	41	18	7	38	49	19	14	19	60	.50	.095	39	56	.88	178	.07	35	2.07	.06	.13	12	53

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Ng %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
L10+00S 16+50W	2	41	11	98	.3	13	14	729	4.52	3	5	ND	2	52	1	2	2	92	.35	.124	7	17	.84	93	.18	3	2.81	.01	.06	2	10
L10+00S 16+00W	1	97	7	90	.1	15	14	1562	3.33	2	5	ND	1	59	1	2	4	77	.61	.062	9	22	.78	173	.16	2	2.53	.01	.07	1	7
L10+00S 15+50W	1	58	12	74	.3	10	11	593	3.47	5	5	ND	1	36	1	2	3	60	.25	.191	7	15	.60	70	.15	3	4.97	.01	.06	1	5
L10+00S 15+00W	1	63	9	85	.3	11	13	1507	3.84	6	5	ND	1	43	1	2	4	70	.25	.174	7	17	.77	70	.09	2	3.20	.01	.08	1	6
L10+00S 14+50W	1	42	33	111	.2	11	11	1477	2.55	5	5	ND	1	46	1	2	4	55	.65	.113	6	14	.71	86	.07	2	2.95	.01	.08	1	5
L10+00S 14+00W	1	35	5	69	.1	11	10	464	3.89	2	5	ND	1	35	1	2	2	70	.21	.117	5	17	.59	85	.17	3	3.23	.01	.06	1	4
L10+00S 13+50W	1	44	6	83	.1	12	14	981	4.13	4	5	ND	1	54	1	2	2	85	.42	.052	8	18	.97	77	.15	4	3.36	.01	.06	1	5
L10+00S 13+00W	2	34	13	100	.6	13	11	1320	3.56	4	5	ND	2	31	1	2	2	65	.25	.124	8	21	.50	114	.16	4	3.22	.01	.07	1	2
L10+00S 12+50W	3	44	12	69	.1	17	13	869	4.25	3	5	ND	1	48	1	2	2	74	.37	.059	9	25	.76	113	.18	2	3.39	.01	.06	2	14
L10+00S 12+00W	3	50	10	117	.2	19	15	522	4.57	2	5	ND	2	57	1	2	2	92	.55	.043	12	37	.91	105	.22	2	3.30	.01	.07	5	2
L10+00S 11+50W	1	48	6	38	.1	3	8	162	2.38	7	5	ND	2	20	1	2	2	45	.17	.055	9	14	.27	33	.14	2	4.55	.02	.02	1	4
L10+00S 11+00W	4	31	21	92	.4	9	8	736	2.32	14	5	ND	1	25	1	2	2	68	.31	.066	13	23	.47	83	.10	3	2.35	.01	.06	2	3
L10+00S 10+50W	2	33	14	93	.7	10	7	231	3.42	17	5	ND	2	13	1	2	2	73	.12	.059	8	23	.47	58	.14	3	4.19	.01	.06	1	3
L10+00S 10+00W	6	37	12	101	.7	11	19	1440	3.21	10	5	ND	1	19	1	3	5	68	.19	.058	12	21	.51	75	.12	6	2.81	.01	.07	1	2
L10+00S 9+50W	4	29	15	107	.1	11	8	498	3.72	16	5	ND	1	14	1	2	2	82	.13	.046	7	24	.55	72	.17	4	2.47	.01	.08	1	2
L10+00S 9+00W	5	35	12	119	.3	12	12	541	3.57	13	5	ND	1	29	1	2	3	79	.59	.052	10	24	.62	97	.14	5	3.07	.01	.09	1	1
L10+00S 8+50W	4	43	11	122	.7	14	15	824	3.76	11	5	ND	2	29	1	2	4	80	.35	.072	12	25	.72	77	.12	6	3.15	.01	.09	1	1
L10+00S 8+00W	3	49	8	101	.4	13	13	1034	3.57	9	5	ND	1	28	1	2	2	78	.35	.073	12	24	.69	71	.11	3	3.19	.01	.08	1	2
L10+00S 7+50W	5	46	18	125	.7	14	13	999	3.51	13	5	ND	2	31	1	2	2	72	.62	.075	13	23	.66	82	.11	2	2.81	.01	.07	1	2
L10+00S 7+00W	4	65	13	98	.7	17	15	764	3.50	11	5	ND	1	29	1	2	2	65	.34	.066	12	27	.60	80	.11	3	2.73	.01	.06	1	1
L10+00S 6+50W	3	64	12	121	.3	25	17	873	4.04	16	5	ND	1	30	1	2	4	80	.36	.058	13	39	.92	83	.13	3	2.89	.01	.08	1	12
L10+00S 6+00W	3	54	12	89	.7	17	15	934	3.11	8	5	ND	1	30	1	3	2	60	.36	.082	15	28	.57	79	.10	2	3.09	.01	.06	1	4
L10+00S 5+50W	4	50	11	104	.5	15	11	579	3.80	10	5	ND	1	24	1	2	2	70	.29	.068	10	29	.56	100	.14	3	2.99	.01	.05	2	7
L10+00S 5+00W	6	34	14	96	.7	14	11	855	3.51	8	5	ND	3	26	1	2	2	70	.30	.062	12	29	.57	71	.16	2	2.47	.01	.06	2	5
L10+00S 4+50W	7	44	14	100	.5	17	12	2183	3.58	4	5	ND	1	32	1	2	2	62	.43	.074	16	29	.54	77	.11	5	2.39	.01	.05	1	2
L10+00S 4+00W	3	28	15	107	.2	15	10	685	4.34	5	5	ND	1	31	1	2	2	77	.20	.064	7	30	.52	85	.17	2	2.18	.01	.05	1	3
STD C/AU-S	19	62	29	131	6.6	73	31	1019	4.08	40	21	7	37	50	19	14	22	60	.48	.088	40	55	.88	177	.07	37	1.96	.06	.14	12	51

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